

## AUTHOR INDEX

- Ahmad, N., 397  
 Bailey, G., 233  
 Beaufort, D., 259  
 Beck, M. S., 1  
 Bergveld, P., 119, 309  
  
 Chan, H. T., 361  
 Conesa, J., 337  
  
 de Bruijn, J. M., 259  
 de Rooij, N. F., 59, 157  
 Dražič, G., 407  
 Duffy, C. J., 17  
  
 Egashira, M., 349  
 Ema, K., 291  
  
 Fernández, A., 337  
 Frith, B., 1  
  
 Gardner, J. W., 361, 373  
 Gernet, S., 59, 157  
 Gilderman, V. K., 115  
 González-Elipe, A. R., 337  
 Greve, J., 119  
  
 Hattori, S., 297  
 Hetrick, R. E., 131  
 Hickman, D., 17  
 Hiirō, K., 285  
 Hök, B., 389  
 Hoozeboom, P. J., 259  
 Huijsing, J. H., 259  
  
 Iwanaga, H., 349  
  
 Janata, J., 415  
 Janata, P., 415  
 Josowicz, M., 415  
  
 Kanda, Y., 247  
 Kanehara, N., 349  
 Karube, I., 297  
 Kerkvliet, H., 195  
 Ko, W. H., 207  
 Kohl, D., 71  
 Kooyman, R. P. H., 119  
 Kopystynski, P., 239  
 Kordić, S., 179  
 Koudelka, M., 59, 157  
 Kreit, D., 233  
  
 Lampe, U., 269  
 Lian-Zhong Yu, 221  
 Lichtman, D., 397  
  
 Manwell, J., 233  
 Meijer, G. C. M., 195  
 Min-Hang Bao, 149, 221  
 Miyagi, H., 329  
 Miyahara, Y., 329  
 Moriizumi, T., 291  
 Müller, J., 269  
 Muñoz, A., 337  
 Munuera, G., 337  
  
 Nakamoto, T., 291  
 Noorder, V., 195  
  
 Obermeier, E., 239  
 Omotosho, O. J., 1  
  
 Palguez, S. F., 115  
 Parsons, P., 233  
 Plaskowski, A., 1  
 Potje-Kamloth, K., 415  
  
 Reinhoudt, D. N., 309  
 Richards, P., 233  
  
 Sanz, J., 337  
 Schasfoort, R. B. M., 119  
  
 Sebata, M., 329  
 Shimizu, Y., 349  
 Shurmer, H. V., 361  
 Skowronska-Ptasinska, M., 309  
 Soria, J., 337  
 Sperring, D. A., 33  
 Streekstra, G. J., 119  
 Sudhölter, E. J. R., 309  
 Suzuki, M., 297  
  
 Tamiya, E., 297  
 Tenerz, L., 389  
 Tirén, J., 389  
 Trontelj, M., 407  
 Tsukada, K., 329  
  
 Unwin, J., 45  
  
 van den Berg, A., 309  
 van den Boom, J. M., 179  
 van der Wal, P. D., 309  
 van Drecht, J., 195  
 van Gelder, R., 195  
 van Oudheusden, B. W., 259  
  
 Wakida, S., 285  
 Walsh, P. T., 45  
 Wei-Jia Qi, 149  
  
 Xian-Ping Wu, 207  
  
 Yamamura, K., 247  
 Yamane, M., 285  
 Yan Wang, 149, 221  
 Ylilammi, M., 167  
 Yokoyama, K., 297  
 Yokoyama, M., 291  
  
 Zemtzov, V. I., 115

## SUBJECT INDEX

---

- Acoustically-driven cantilever
  - for gas sensing, 131
- Aerospace applications
  - optical displacement transducer for, 233
- Alcohols
  - application of discrimination techniques to, and tobaccos using tin-oxide sensors, 361
- Anisotropic etching
  - of (100) silicon, compensating corner undercutting in, 207
- Boron nitride
  - thin films for u.v.-sensor applications, 397
- Calcium chromite
  - Eu chromite doped with, for electrochemical O sensors, 115
- Cantilever
  - for gas sensing, acoustically-driven, 131
- Cantilever beam
  - batch-fabricated non-reverse valve with, manufactured by micro-machining of Si, 389
- Ceramic sensor elements
  - preparation and properties of, based on  $\text{MgCr}_2\text{O}_4$ , 407
- Chromium
  - preparation and properties of ceramic sensor elements based on  $\text{MgCr}_2\text{O}_4$ , 407
- Compton-scattered gamma photons
  - sensing system for non-destructive imaging using externally, 1
- Conductometry
  - exposure monitor for chlorinated hydrocarbons based on, using Pb phthalocyanine films, 45
- d.c. and a.c. behaviour
  - of ISFET, influence of immunological precipitate on, 119
- Discrimination techniques
  - application of, to alcohols and tobaccos using tin-oxide sensors, 361
- Earphones
  - Si microphones and, for hearing aids, 33
- Electrical and chemical requirements
  - for REFETs, may coincide, 309
- Electrical conduction
  - in solid-state gas sensors, 373
- Electrochemical cell
  - fabrication and characterization of planar, and its application as glucose sensor, 59
- Electrochemical encapsulation
  - for sensors, 415
- Electron mediators
  - micro glucose sensors using, immobilized on polypyrrole-modified electrode, 297
- Encapsulation
  - for sensors, electrochemical, 415
- Europium chromite
  - doped with Ca chromite for electrochemical O sensors, 115
- Exposure monitor
  - for chlorinated hydrocarbons based on conductometry using Pb phthalocyanine films, 45
- Fabrication
  - and characterization of planar electrochemical cell and its application as glucose sensor, 59
- Gas sensing
  - acoustically-driven cantilever for, 131
- Gas-sensing characteristics
  - of  $\text{Li}^+$ -doped and undoped ZnO whiskers, 349
- Gas sensors
  - electrical conduction in solid-state, 373
- Gauge
  - four-terminal
    - for pressure sensors, geometric design rules for, 149
    - quasi-circular and square diaphragm Si pressure sensors, 247
- Geometric design rules
  - of four-terminal gauge for pressure sensors, 149

- Glucose microelectrode
  - planar amperometric enzyme-based, 157
- Glucose sensor(s)
  - using electron mediators immobilized on polypyrrole-modified electrode, micro, 297
  - fabrication and characterization of planar electrochemical cell and its application as, 59
- Hall plates
  - offset reduction in; simulations and experiments, 179
- Hearing aids
  - Si microphones and earphones for, 33
- Hydrocarbons
  - exposure monitor for chlorinated, based on conductometry using Pb phthalocyanine films, 45
- Hydrogen gas-sensing
  - mechanism of, at low temperatures using Rh/TiO<sub>2</sub> systems, 337
- Imaging
  - sensing system for non-destructive, using externally Compton-scattered gamma photons, 1
- Immunological precipitate
  - influence of, on d.c. and a.c. behaviour of ISFET, 119
- ISFET(s)
  - influence of immunological precipitate on d.c. and a.c. behaviour of, 119
  - long-life multiple-, with polymeric gates, 329
  - novel Urushi matrix Na, 285
- Lead phthalocyanine films
  - exposure monitor for chlorinated hydrocarbons based on conductometry using, 45
- Lithium
  - gas-sensing characteristics of Li<sup>+</sup>-doped and undoped ZnO whiskers, 349
- Magnesium
  - preparation and properties of ceramic sensor elements based on MgCr<sub>2</sub>O<sub>4</sub>, 407
- Microcomputer interfacing
  - three-terminal integrated temperature transducer with, 195
- Microelectrode
  - planar amperometric enzyme-based glucose, 157
- Micromachining
  - of Si, batch-fabricated non-reverse valve with cantilever beam manufactured by, 389
- Microphones
  - Si, and earphones for hearing aids, 33
- Monitoring of flow
  - in pipes, integrated sensor for non-invasive, 259
- Neural-network pattern recognition
  - odour-sensing system using quartz-resonator sensor array and, 291
- Odour-sensing system
  - using quartz-resonator sensor array and neural-network pattern recognition, 291
- Offset reduction
  - in Hall plates; simulations and experiments, 179
- Optical displacement transducer
  - for aerospace applications, 233
- Optical sensor
  - temporal coherence-based, 17
- Oxygen sensor(s)
  - Eu chromite doped with Ca chromite for electrochemical, 115
  - made of reactively sputtered ZnO, thin-film, 269
- Photons
  - Compton-scattered gamma, sensing system for non-destructive imaging using externally, 1
- Piezoresistance
  - of Si, effect of shear stress on, 221
- Pipes
  - monitoring of flow in, integrated sensor for non-invasive, 259
- Polymeric gates
  - long-life multiple-ISFETs with, 329
- Polypyrrole
  - modified electrode, micro glucose sensors using electron mediators immobilized on, 297
- Pressure sensor(s)
  - four-terminal-gauge quasi-circular and square diaphragm Si, 247
  - geometric design rules of four-terminal gauge for, 149
  - interchangeable Si, with on-chip compensation circuitry, 239

- Reducing gases
  - surface processes in detection of, with  $\text{SnO}_2$ -based devices, 71
- REFETs
  - how electrical and chemical requirements for, may coincide, 309
- Rhodium
  - mechanism of H gas-sensing at low temperatures using Rh/TiO<sub>2</sub> systems, 337
- Sensing system
  - for non-destructive imaging using externally Compton-scattered gamma photons, 1
- Sensor array
  - odour-sensing system using quartz-resonator, and neural-network pattern recognition, 291
- Sensor elements
  - preparation and properties of ceramic, based on  $\text{MgCr}_2\text{O}_4$ , 407
- Shear stress
  - on piezoresistance of Si, effect of, 221
- Silicon
  - anisotropic etching of (100) compensating corner undercutting in, 207
  - microphones and earphones for hearing aids, 33
  - piezoresistance of, effect of shear stress on, 221
  - pressure sensors
    - four-terminal-gauge quasi-circular and square diaphragm, 247
    - with on-chip compensation circuitry, interchangeable, 239
- Sodium
  - ISFET, novel Urushi matrix, 285
- Surface processes
  - in detection of reducing gases with  $\text{SnO}_2$ -based devices, 71
- Temperature transducer
  - three-terminal integrated, with microcomputer interfacing, 195
- Temporal coherence-based optical sensor, 17
- Thermodynamics
  - of sensors, 167
- Tin dioxide
  - surface processes in detection of reducing gases with  $\text{SnO}_2$ -based devices, 71
- Tin-oxide sensors
  - application of discrimination techniques to alcohols and tobaccos using, 361
- Titanium
  - mechanism of H gas-sensing at low temperatures using Rh/TiO<sub>2</sub> systems, 337
- Tobaccos
  - application of discrimination techniques to alcohols and, using tin-oxide sensors, 361
- Transducer(s)
  - optical displacement, for aerospace applications, 233
  - three-terminal integrated temperature, with microcomputer interfacing, 195
- Ultraviolet-sensor applications
  - boron nitride thin films for, 397
- Urushi matrix
  - Na ISFET, novel, 285
- Valve
  - batch-fabricated non-reverse, with cantilever beam manufactured by micromachining of Si, 389
- Zinc
  - gas-sensing characteristics of  $\text{Li}^+$ -doped and undoped ZnO whiskers, 349
  - thin-film O sensors made of reactively sputtered ZnO, 269



